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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,166	07/03/2003	Adam K. Kolawa	50283/RRT/P396	9159

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EXAMINER
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TECKLU, ISAAC TUKU

ART UNIT	PAPER NUMBER
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2192

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/613,166

Applicant(s)

KOLAWA ET AL.

Examiner

Isaac T. Tecklu

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is responsive to the amendment 09/06/2006.
2. Claims 1- 41 have been examined.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Apuzzo et al. (US 6,986,125 B2), hereinafter Apuzzo.

#### Per claim 1

Apuzzo discloses a method for automatically preventing errors in computer software (e.g. fig. 13 and related text), the method comprising:

storing the computer software in a code repository (e.g. fig. 13, element 1310 and related text).

executing a plurality of software verification tools to verify the computer software (e.g. Fig. 3, element 310, 320, 340 and fig. 4 “LIST OF ABSTRACTIONS and related text), wherein each of the plurality of software verification tools has a verification scope (e.g. fig. 9A-9D, col. 8:55-65 “which contains state and event abstract information for different layer ...”) and automatically generates one or more test cases (e.g. fig. 3, element 350, TEST CASE 1-N and related text);

generating verification results responsive to executing the plurality of software verification tools and the automatically generated test cases (e.g. fig. 13, element 1350 and related text);

processing the verification results for generating an objective criterion of quality of the computer software (e.g. fig. 13, element 1350, 1380 and 1390 and related text); and

customizing the verification scope of one or more of the plurality of verification tools responsive to the objective criterion of quality of the computer software (e.g. col. 7: 25-35 "... a list of event entries is input to the abstraction engine ..." and lines 35-40 "... parses the individual abstraction lines 520 of fig. 5 to create event scenario data 530 of fig. 5 and col. 13: 13-20 "... test case stored in memory is incremented ...").

Per claim 2

Apuzzo discloses:

The method of claim 1 further comprising providing a common configuration file for the plurality of verification tools (e.g. fig. 4, LIST OF EVENT ATTRIBUTE and related text col. 7: 25-35 "... a list of event entries is input to the abstraction engine ..." and lines 35-40 "... parses the individual abstraction lines 520 of fig. 5 to create event scenario data 530 of fig. 5 and col. 13: 13-20 "... test case stored in memory is incremented ...").

Per claim 3

Apuzzo discloses:

The method of claim 2, wherein the step of customizing the verification scope comprises modifying the common configuration file responsive to the objective criterion of quality of the computer software (e.g. col. 7: 25-35 "... a list of event entries is input to the abstraction engine ..." and e.g. col. 13: 13-20 "... test case stored in memory is incremented ...").

Art Unit: 2192

Per claim 4

Apuzzo discloses:

The method of claim 2 further comprising modifying a portion of the common configuration file specific to one of the plurality of verification tools responsive to the objective criterion of quality of the computer software (e.g. col. 4: 25- 30 "... events scenario which reflect state change ..." and e.g. fig. 7 and related text).

Per claim 5

Apuzzo discloses:

The method of claim 2 further comprising modifying a portion of the common configuration file specific to one of a plurality of software developers responsive to the objective criterion of quality of the computer software (e.g. fig. 7, element 700 and 710 and related text).

Per claim 6

Apuzzo discloses:

The method of claim 1, wherein the step of processing the verification results for generating an objective criterion of quality of the computer software comprises formulating the verification results in a confidence factor represented by the equation:  $C = p/t \times 100$ , where p is number of successful test cases and t is total number of test cases (e.g. fig. 13, element 1390 and related text).

Per claim 7

Apuzzo discloses:

The method of claim 1, wherein each portion of the computer software being developed by a software developer of a plurality of software developers, and the verification results include a plurality of objective criteria each of the plurality of objective criteria corresponding to quality of a respective portion of the computer software developed by each software developer of the plurality of software developers (e.g. Fig. 13 and related text).

Per claim 8

Apuzzo discloses:

The method of claim 7 further comprising providing a common configuration file for the plurality of verification tools; and modifying the common configuration file responsive to one or more objective criteria corresponding to quality of a respective portion of the computer software developed by each software developer (e.g. col. 7: 25-35 "... a list of event entries is input to the abstraction engine ..." and lines 35-40 "... parses the individual abstraction lines 520 of fig. 5 to create event scenario data 530 of fig. 5 and col. 13: 13-20 "... test case stored in memory is incremented ...").

Per claim 9

Apuzzo discloses:

The method of claim 7 further comprising verifying a first portion of the computer software developed by a first developer of the plurality of software developers using the plurality of verification tools, before the computer software is stored in the code repository (e.g. fig. 13 and related text).

Per claim 10

Apuzzo discloses:

The method of claim 9 further comprising allowing storing the first portion of the computer software in the code repository only if result of verification of the first portion meets a set standard (e.g. fig. 14, element 1450 and related text).

Per claim 11

Apuzzo discloses:

The method of claim 10 further comprising modifying the set standard responsive to the objective criterion of quality of the computer software (e.g. col. 7: 25-35 "... a list of event entries is input to the abstraction engine ..." and lines 35-40 "... parses the individual abstraction lines 520 of fig. 5 to create event scenario data 530 of fig. 5 and col. 13: 13-20 "... test case stored in memory is incremented ...").

Per claim 12

Apuzzo discloses:

The method of claim 10, wherein the set standard is common to each of the plurality of software developers (in paragraph [0044]).

Per claim 13

Apuzzo discloses:

The method of claim 10, wherein the set standard is unique to at least one of the plurality of software developers (e.g. fig. 15A and related text).

Per claim 14

This is the system version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 15

This is the system version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 16

This is the system version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 17

This is the system version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 18

This is the system version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 19

This is the system version of the claimed method discussed above (Claim 6), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 20

This is the system version of the claimed method discussed above (Claim 7), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 21

This is the system version of the claimed method discussed above (Claim 8), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 22

This is the system version of the claimed method discussed above (Claim 9), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 23

This is the system version of the claimed method discussed above (Claim 10), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.



Art Unit: 2192

Per claim 24

This is the system version of the claimed method discussed above (Claim 11), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 26

This is the system version of the claimed method discussed above (Claim 13), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 27

This is another method version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 28

This is another method version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 29

This is another method version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 30

This is another method version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 31

This is another method version of the claimed method discussed above (Claim 6), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 33

Apuzzo discloses:

The method of claim 32, wherein the verification results include a plurality of objective each of the plurality of objective criteria corresponding to quality of a respective portion of the computer software developed by a respective software developer of the plurality of software developers (e.g. fig. 4, element 410 and related text).

Per claim 34

This is another method version of the claimed method discussed above (Claim 8), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 35

This is another method version of the claimed method discussed above (Claim 9), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 36

This is another method version of the claimed method discussed above (Claim 10), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 37

This is another method version of the claimed method discussed above (Claim 11), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 38

This is another method version of the claimed method discussed above (Claim 12), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 39

This is another method version of the claimed method discussed above (Claim 13), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 40

Apuzzo discloses:

The method of claim 34 wherein the step of modifying the configuration file comprises modifying the configuration file by an architect with appropriate access right to edit the configuration file (e.g. col. 7: 25-35 "... a list of event entries is input to the abstraction engine ..." and lines 35-40 "... parses the individual abstraction lines 520 of fig. 5 to create event scenario data 530 of fig. 5 and col. 13: 13-20 "... test case stored in memory is incremented ...").

Per claim 41

This is another method version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

*Response to Arguments*

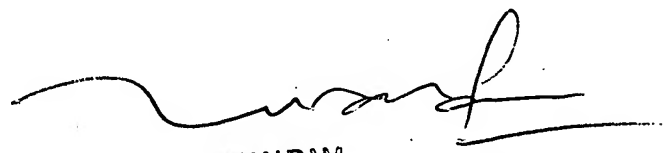
5. Applicant's arguments with respect to claims 1-41 have been considered but are moot in view of the new ground(s) of rejection. See Apuzzo art made of record.

*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac T. Tecklu whose telephone number is (571) 272-7957. The examiner can normally be reached on M-TH 9:300A - 8:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



TUAN DAM  
SUPERVISORY PATENT EXAMINER

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Patent Examiner  
Art Unit 2192